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31 July 2009

Mr. David J. Chiusano
Remedial Bureau E, Section A
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7012

RE: Groundwater Monitoring Report
Contract/WA No: D004441-26
Electric Company, Brooklyn, NY
Site No. 2-24-015

Dear Mr. Chiusano:

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C., and its affiliate EA Science and Technology (EA) to perform groundwater monitoring at the Empire Electric Company site (NYSDEC Site No. 2-24-015). The site is located in an industrial area by the Bay Ridge Channel in Brooklyn, New York (Figure 1).

This work assignment is being conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004441-26).

The purpose of groundwater sampling at the Empire Electric Company site is to assess the contaminant levels surrounding the site prior to implementation of the Interim Remedial Measure (IRM). The IRM will consist primarily of building demolition and removal. Following IRM implementation, a full Remedial Investigation (RI) will be conducted and additional groundwater monitoring will be performed. This report was completed to discuss the field activities and summarize the groundwater analytical results associated with the April and May 2009 sampling events.

Existing monitoring well ID's have been changed for consistency. Both the old and new well ID's are shown on Figure 2 and described in the Tables 1-5. Table 6 summarizes the monitoring well ID changes, as shown on Figure 2. New monitoring well ID's are referenced in the text.

GROUNDWATER SAMPLING ACTIVITIES

The sampling program consisted of collecting groundwater samples from ten monitoring wells, MW-01, MW-02, MW-03, MW-05, MW-08, MW-09, MW-10, MW-12, MW-13, and MW-14 throughout the target area (Figure 2). On 14 April 2009 nine monitoring wells were sampled using a submersible pump and dedicated section of polyethylene tubing. Monitoring Well MW-10 was sampled on 8 May 2009 due to property access restrictions. Sampling of well MW-10

was performed using the same low flow sampling techniques that were used during the 14 April 2009 sampling event. Groundwater was sampled and analyzed for volatile organic compounds (VOC) by U.S. Environmental Protection Agency (EPA) Method 8260B, semi volatile organic compounds (SVOC) by U.S. EPA Method 8270C, metals by U.S. EPA Methods 6010B/7470, polychlorinated biphenyls (PCB) by U.S. EPA Method 8082, and pesticides by U.S. EPA Method 8081. Copies of the daily field reports are provided in Appendix A. Site sampling locations are detailed in Figure 2.

Prior to sample collection, each of the ten monitoring wells was inspected and its condition noted on the groundwater purging and sampling form (Appendix B). Groundwater level measurements were then recorded in all wells as measured from the top of the inner polyvinyl chloride (PVC) casing using an oil/water interface probe. Depth to water in the unconsolidated deposits ranged from 11.96 ft below top of inner casing (MW-05) to 21.75 ft below top of inner casing (MW-01). Groundwater sampling forms (Appendix B) include the depth to groundwater observed at each monitoring well location during the gauging event. This information is summarized in Table 1 and estimated groundwater contours are presented in Figure 3. No LNAPL was detected in any of the site monitoring wells during gauging or sampling activities.

Based on the April and May 2009 groundwater level measurements, the groundwater flow direction cannot be definitively identified. Tidal fluctuations of the Upper New York Bay may have influenced the groundwater elevations measured during the April and May 2009 gauging events; the Upper New York Bay is approximately 1,000 ft northwest of the site. Groundwater elevations were gauged from 7:55 am to 2:00 pm on 14 April 2009, during which time the tide fell approximately five feet from a high to low tide elevation. The 8 May 2009 gauging event was performed at 9:20 am, directly in the middle of a low to high tide cycle. Future gauging events will be coordinated to account for the tidal fluctuation. Estimated groundwater contours are presented in Figure 3.

Following field activities, review of NYSDEC Spill Report documentation of spill Nos. 9611002 and 9614638 indicate the historical presence of several additional monitoring wells north and east of the site in the vicinity of the Department of Sanitation building as shown on Figure 3. Groundwater gauging data from 16 May 2008 (which excluded existing wells on the Empire Electric Site) indicate groundwater flows in a southwesterly direction from the Department of Sanitation Building. These wells will be located, gauged, and sampled during the next groundwater monitoring well sampling event and/or during the full site RI to better determine groundwater flow patterns.

The monitoring wells were purged until water quality parameters (pH, conductivity, oxygen reduction potential, temperature, dissolved oxygen, and turbidity) were stabilized. Groundwater is purged until parameters are stabilized in order to assure that a representative groundwater sample is collected. Once groundwater parameters stabilized, samples were collected, placed in a cooler with ice, and delivered to Chemtech of Mountainside, New Jersey.

LABORATORY ANALYSIS

Analytical data for the groundwater samples are provided in Tables 2-5. All groundwater samples were analyzed by Chemtech of Mountainside, New Jersey. Data validation was provided by Environmental Data Services, Inc. of Williamsburg, Virginia, an independent third party reviewer. Copies of the data usability summary report for the laboratory analytical data are provided in Appendix C. Laboratory analytical data, and chain of custody forms are provided in Appendix D.

Groundwater samples were analyzed for VOCs, SVOCs, TAL metals, PCBs, and pesticides, along with collection of water quality parameters during the sampling event. Tables 2-5 list analytical results compared to applicable NYSDEC Ambient Water Quality Standards (AWQS). The following is a brief discussion of notable results.

- **VOCs—** The volatile organic compounds detected above the NYSDEC AWQS included hydrocarbons such as benzenes and ethenes. Several wells contained tetrachloroethene (PCE) accompanied by break down compound trichloroethene (TCE). See Table 2 for full results.

- **SVOCs—**No samples were reported with SVOC concentrations above the NYSDEC AWQS.

- **Pesticides**—No samples were reported with pesticide concentrations above the laboratory's detection limit.

- **Metals—**Concentrations of sodium detected in the site monitoring wells are potentially related to the proximity of the Upper New York Bay, a salt water body. Iron and manganese were detected in some of the wells. The detection of chromium in three of the site wells will be monitored during future events. See Table 4 for full results

- **PCBs—**Slight PCB concentrations in water indicate that PCBs are mobile and will be monitored during future events. See Table 5 for full results.

Review of NYSDEC Spill Repo rt inform ation for spill Nos. 9611002 and 9614638 m ade available f ollowing the sam pling events ind icates a pa st UST f uel spill a t th e adjacen t Department of Sanita tion Departm ent p roperty. The contam inants of conce rn r esulting f rom these sp ills are predom inantly VOC's associated w ith f uel spills, inc luding naphth alene. I t is recommended that th e existing gro undwater mon itoring wells located adjacen t to the site be included in future groundwater m onitoring and RI activities to better determ ine groundwater flow patterns and identify potential groundwater impacts from offsite contaminant sources.

If you have any questions, please do not hesitate to contact me at (315) 431-4610.

Sincerely yours,

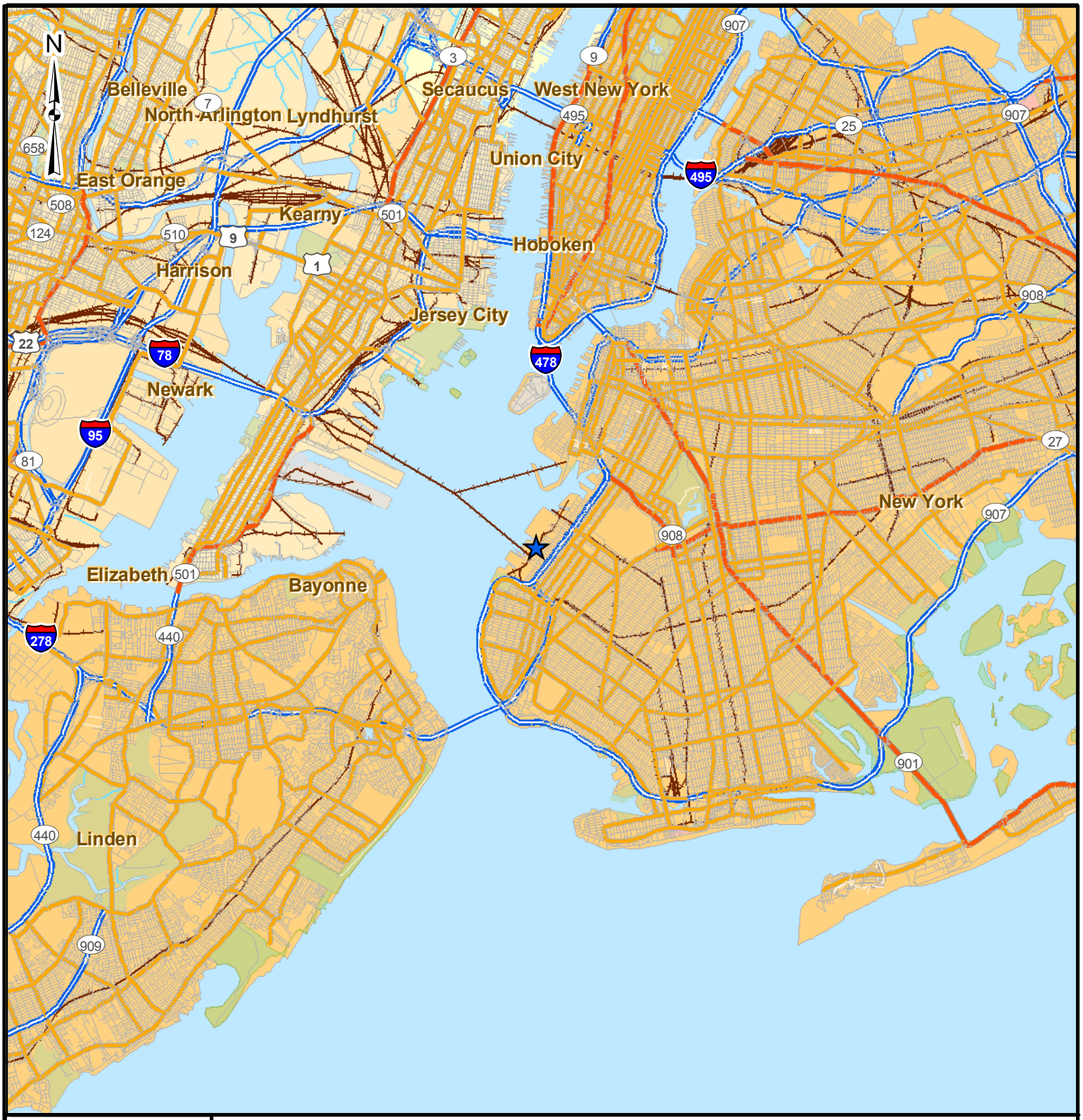
EA SCIENCE AND TECHNOLOGY

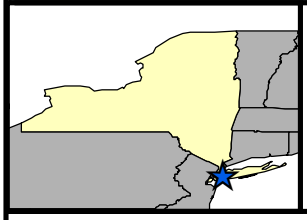
Don Conan
Project Manager

EA ENGINEERING, P.C.

Chris Canonica, P.E.
Vice President

Attachments
SEF/drs





Legend

★ Site Location

Miles

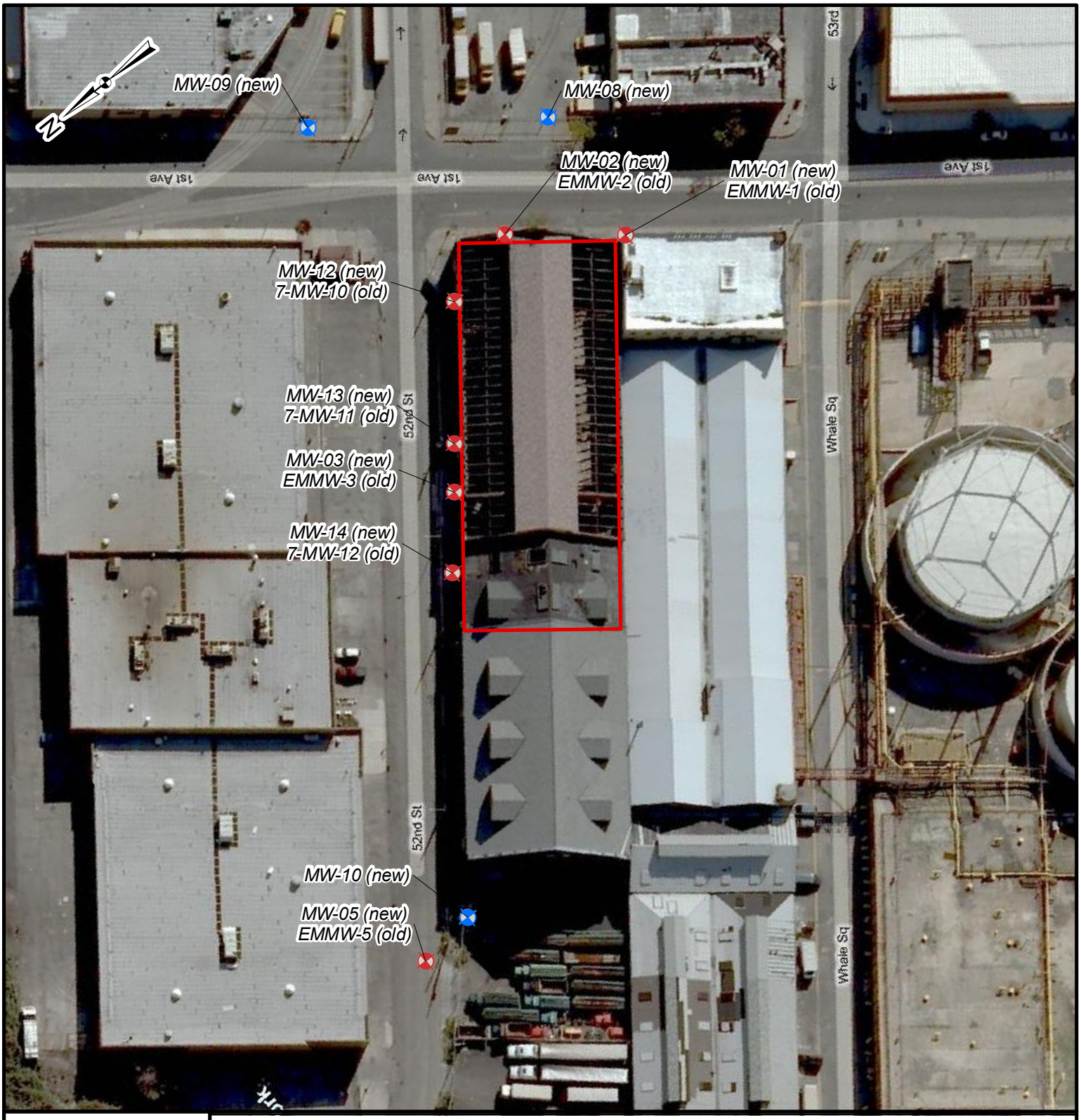
0 0.5 1 2 3 4

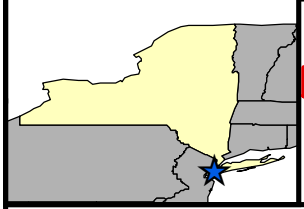
Source: NYSGIS Clearinghouse

EMPIRE ELECTRIC (2-24-015)
WORK ASSIGNMENT
BROOKLYN, NEW YORK

FIGURE 1
SITE LOCATION MAP

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DFC	RSC	MJS	SEF	AS SHOWN	JULY 2009	14474.26	GIS/PROJECTS/ FIGURE1.MXD





Legend

- Building Footprint
- Monitoring Wells Installed by EA
- Existing Monitoring Wells

0 50 100 200 Feet

Source: Windows Live Maps
www.bing.com/maps

EMPIRE ELECTRIC (2-24_015)
WORK ASSIGNMENT
BROOKLYN, NEW YORK

FIGURE 2
GROUNDWATER SAMPLE
LOCATIONS

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
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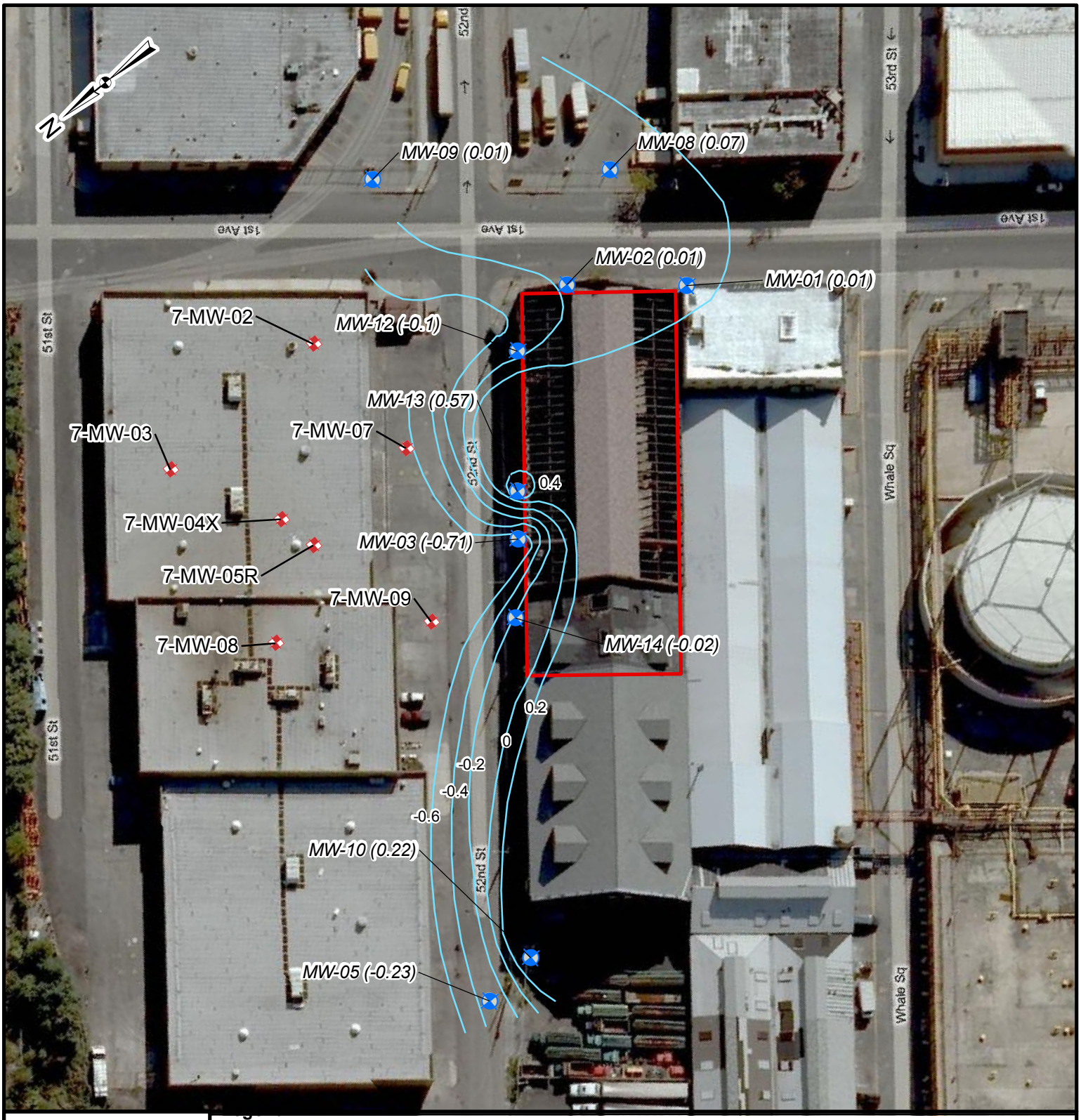

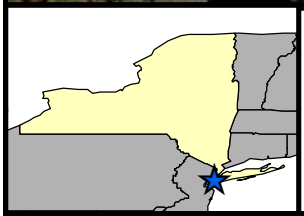

Off Site Wells
Building Footprint
Groundwater Contours
Monitoring Wells
-0.2 Elevation below zero datum

MW-10 (0.1') Well ID (GW Elev. ft.)

0 50 100 200 Feet

Source: Windows Live Maps
www.bing.com/maps
Vertical Datum: Brooklyn Highway Datum

EMPIRE ELECTRIC (2-24-015)
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BROOKLYN, NEW YORK

FIGURE 3
GROUNDWATER CONTOURS

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
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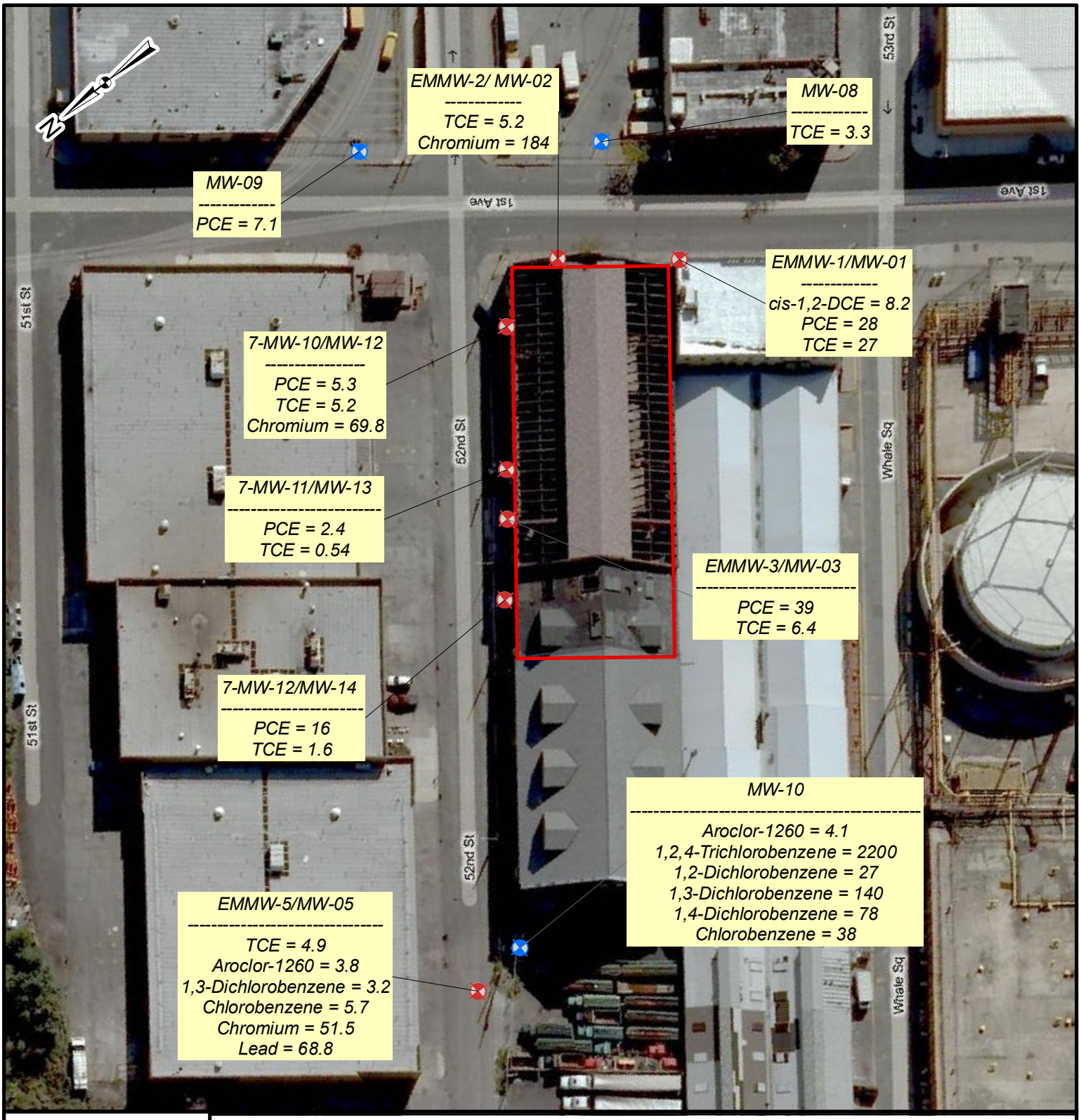

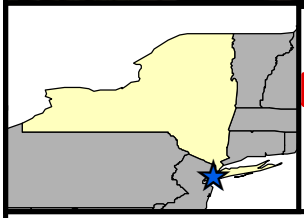

Legend

- Building Footprint
- Monitoring Wells Installed by EA
- Existing Monitoring Wells

0 50 100 200 Feet

Concentrations are in ug/L

Source: Windows Live Maps
www.bing.com/maps

EMPIRE ELECTRIC (2-24-015)
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FIGURE 4
ANALYTES OF CONCERN
DETECTED IN APRIL/MAY 2009
GROUNDWATER SAMPLES

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DFC	MJS	MJS	SEF	AS SHOWN	JULY 2009	14474.26	GIS/PROJECTS/ FIGURE4.MXD

EMPIRE ELECTRIC (2-24-015)
BROOKLYN, NEW YORK

TABLE 1 GROUNDWATER ELEVATION DATA

Monitoring Well Identification		Top of PVC Riser Elevation (ft AMSL)	Depth to Groundwater (ft btor) April 14,2009	Depth to Groundwater (ft btor) May 8,2009	Groundwater Table Elevation (ft AMSL)
New	Previous				
MW-08	N/A	21.22	21.15	NM	0.07
MW-09	N/A	19.41	19.40	NM	0.01
MW-13	7-MW-11	17.85	17.28	NM	0.57
MW-14	7-MW-12	16.69	16.71	NM	-0.02
MW-12	7-MW-10	19.67	19.77	NM	-0.10
MW-01	EMMW-1	21.80	21.79	NM	0.01
MW-02	EMMW-2	21.22	21.21	NM	0.01
MW-03	EMMW-3	17.23	17.94	NM	-0.71
MW-05	EMMW-5	11.73	11.96	NM	-0.23
MW-010	N/A	14.19	NM	13.97	0.22

NOTE: ft AMSL = feet above mean sea level.
ft btor = feet below top of riser
ft bgs = feet below ground surface
NM = not measured
Top of PVC riser elevation collected during the 2003 sampling event. (Appendix B - Groundwater Sampling Forms)
Elevations in Brooklyn Borough Datum (2.75 feet above mean sea level)

TABLE 2 VOLATILE ORGANIC COMPOUNDS (VOCS) DETECTED IN WATER SAMPLES APRIL 2009

Parameter List USEPA Method 8260 B	New Well ID	MW-01		MW-02		MW-03		MW-05		MW-08		MW-09		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	EMMW-1		EMMW-2		EMMW-3		EMMW-5		MW-08		MW-09		
	Lab ID	A2314-10		A2314-03		A2314-11		A2314-06		A2314-01		A2314-02		
	Sample Type	water		water		water		water		water		water		
	Sample Date	4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
1,1,1-Trichloroethane	(ug/L)	(<0.40)	U	(<0.40)	U	(<0.40)	U	(<0.40)	U	(<0.40)	U	(<0.40)	U	*5 (s)*
1,1-Dichloroethane	(ug/L)	1.50		(<0.360)	U	(<0.360)	U	(<0.360)	U	(<0.360)	U	(<0.360)	U	*5 (s)*
1,2,4-Trichlorobenzene	(ug/L)	(<0.620)	U	(<0.620)	U	(<0.620)	U	(<0.620)	U	(<0.620)	U	(<0.620)	U	*5 (g)*
1,2-Dichlorobenzene	(ug/L)	(<0.450)	U	(<0.450)	U	(<0.450)	U	(<0.450)	U	(<0.450)	U	(<0.450)	U	*3 (s)*
1,3-Dichlorobenzene	(ug/L)	(<0.430)	U	(<0.430)	U	(<0.430)	U	**3.20**		(<0.430)	U	(<0.430)	U	*3 (s)*
1,4-Dichlorobenzene	(ug/L)	(<0.320)	U	(<0.320)	U	(<0.320)	U	2.80		(<0.320)	U	(<0.320)	U	*3 (s)*
Chlorobenzene	(ug/L)	(<0.490)	U	(<0.490)	U	(<0.490)	U	**5.70**		(<0.490)	U	(<0.490)	U	*5 (s)*
Chloroform	(ug/L)	2.20		4.30		1.10		(<0.340)	U	(<0.340)	U	**10**		*7 (s)*
cis-1,2-Dichloroethene	(ug/L)	**8.20**		(<0.350)	U	0.810	J	(<0.350)	U	(<0.350)	U	(<0.350)	U	*5 (s)*
Methylcyclohexane	(ug/L)	(<0.680)	U	(<0.680)	U	(<0.680)	U	(<0.680)	U	(<0.680)	U	(<0.680)	U	NA
Tetrachloroethene	(ug/L)	**28.0**		1.60		**39.0**		(<0.270)	U	3.30		**7.10**		*5 (s)*
Trichloroethene	(ug/L)	**27.0**		**5.20**		**6.40**		4.90		(<0.280)	U	1.90		*5 (s)*

Parameter List USEPA Method 8260 B	New Well ID	MW-10		MW-12		MW-13		MW-14		n/a		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	MW-10		7-MW-10		7-MW-11		7-MW-12		Duplicate		
	Lab ID	A2676-01		A2314-04		A2314-07		A2314-05		A2314-12		
	Sample Type	water		water		water		water		water		
	Sample Date	5/8/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
1,1,1-Trichloroethane	(ug/L)	(<0.40)	U	3.20		(<0.40)	U	(<0.40)	U	(<0.40)	U	*5 (s)*
1,1-Dichloroethane	(ug/L)	(<0.360)	U	(<0.360)	U	(<0.360)	U	(<0.360)	U	(<0.360)	U	*5 (s)*
1,2,4-Trichlorobenzene	(ug/L)	**2,200**	D	(<0.620)	U	(<0.620)	U	(<0.620)	U	(<0.620)	U	*5 (g)*
1,2-Dichlorobenzene	(ug/L)	**27.0**		(<0.450)	U	(<0.450)	U	(<0.450)	U	(<0.450)	U	*3 (s)*
1,3-Dichlorobenzene	(ug/L)	**140**	D	(<0.430)	U	(<0.430)	U	(<0.430)	U	(<0.430)	U	*3 (s)*
1,4-Dichlorobenzene	(ug/L)	**78.0**		(<0.320)	U	(<0.320)	U	(<0.320)	U	(<0.320)	U	*3 (s)*
Chlorobenzene	(ug/L)	**38.0**		(<0.490)	U	(<0.490)	U	(<0.490)	U	(<0.490)	U	*5 (s)*
Chloroform	(ug/L)	(<0.340)	U	4.20		(<0.340)	U	(<0.340)	U	(<0.340)	U	*7 (s)*
cis-1,2-Dichloroethene	(ug/L)	(<0.350)	U	(<0.350)	U	(<0.350)	U	(<0.350)	U	(<0.350)	U	*5 (s)*
Methylcyclohexane	(ug/L)	(<0.680)	U	(<0.680)	U	0.740	J	(<0.680)	U	(<0.680)	U	NA
Tetrachloroethene	(ug/L)	(<0.270)	U	**5.3**		2.40		**16.0**		**11.0**		*5 (s)*
Trichloroethene	(ug/L)	0.530	J	**5.2**		0.540	J	1.60		0.970	J	*5 (s)*

Notes:

All analytical data results provided by Chemtech.

Bold values indicate that the analyte was detected above the NYSDEC Ambient Water Quality Standard.

EPA = Environmental Protection Agency

NYSDEC = New State Department of Environmental Conservation

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

ug/L = mircograms per liter (ppb)

Duplicate collected at MW-13

EMPIRE ELECTRIC (2-24-015)
BROOKLYN, NEW YORK

TABLE 3 SEMI VOLATILE ORGANIC COMPOUNDS (SVOCS) DETECTED IN WATER SAMPLES APRIL 2009

Parameter List USEPA Method 8270 C	New Well ID	MW-01		MW-02		MW-03		MW-05		MW-08		MW-09		NYSDEC Ambient Water Quality Standard (ppb)
	Sample ID	EMMW-1		EMMW-2		EMMW-3		EMMW-5		MW-08		MW-09		
	Lab ID	A2314-10		A2314-03		A2314-11		A2314-06		A2314-01		A2314-02		
	Sample Type	water		water		water		water		water		water		
	Sample Date	4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
bis(2-Ethylhexyl)phthalate	(ug/L)	(<0.170)	U	(<0.170)	U	(<0.170)	U	1.30	J	(<0.170)	U	(<0.170)	U	5 (s)

Parameter List USEPA Method 8270 C	New Well ID	MW-10		MW-12		MW-13		MW-14		n/a		NYSDEC Ambient Water Quality Standard (ppb)
	Sample ID	MW-10		7-MW-10		7-MW-11		7-MW-12		Duplicate		
	Lab ID	A2676-01		A2314-04		A2314-07		A2314-05		A2314-12		
	Sample Type	water		water		water		water		water		
	Sample Date	5/8/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
bis(2-Ethylhexyl)phthalate	(ug/L)	(<0.160)	U	(<0.170)	U	(<0.160)	U	(<0.170)	U	(<0.170)	U	5 (s)

Notes:

All analytical data results provided by Chemtech.

Bold values indicate that the analyte was detected above the NYSDEC Ambient Water Quality Standard.

EPA = Environmental Protection Agency

NYSDEC = New State Department of Environmental Conservation

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

ug/L = mircograms per liter (ppb)

Duplicate collected at MW-13

TABLE 4 METALS DETECTED IN WATER SAMPLES APRIL 2009

Parameter List USEPA Method 6010 B / 7470	New Well ID	MW-01		MW-02		MW-03		MW-05		MW-08		MW-09		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	EMMW-1		EMMW-2		EMMW-3		EMMW-5		MW-08		MW-09		
	Lab ID	A2314-10		A2314-03		A2314-11		A2314-06		A2314-01		A2314-02		
	Sample Type	water		water		water		water		water		water		
	Sample Date	4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
Aluminum	(ug/L)	(<100)	U	1,240		405.0		3,000		782.0		898.0		NA
Barium	(ug/L)	99.50		171.0		158.0		68.50		110		67.0		1,000 (s)
Calcium	(ug/L)	62,400		87,800		48,200		21,500		47,900		53,800		NA
Chromium	(ug/L)	(<5.0)	U	**184.0**		10.60		**51.50**		10.70		7.490		50 (s)
Copper	(ug/L)	(<10.0)	U	(<10.0)	U	(<10.0)	U	75.80		(<10.0)	U	(<10.0)	U	200 (s)
Iron	(ug/L)	79.20		**2,020**		**594.0**		**7,060**		**1,310**		**1,360**		300 (s)
Lead	(ug/L)	(<6.0)	U	(<6.0)	U	(<6.0)	U	**68.80**		(<6.0)	U	6.390		25 (s)
Magnesium	(ug/L)	15,600		21,200		18,900		7,100		15,200		13,200		35,000 (g)
Manganese	(ug/L)	**1,040**		63.40		**447.0**		119.0		**315.0**		226.0		300 (s)
Mercury	(ug/L)	(<0.20)	UN	0.220	N	(<0.20)	UN	0.510	N	(<0.20)	UN	(<0.20)	UN	0.7 (s)
Nickel	(ug/L)	(<20.0)	U	(<20.0)	U	(<20.0)	U	32.60		(<20.0)	U	(<20.0)	U	100 (s)
Potassium	(ug/L)	3,780		6,490		5,150		7,310		6,790		4,980		NA
Sodium	(ug/L)	**138,000**		**118,000**		**237,000**		**332,000**		**98,600**		**124,000**		20000 (s)
Thallium	(ug/L)	(<0.20)	U	(<0.20)	U	(<0.20)	U	(<0.20)	U	(<0.20)	U	(<0.20)	U	*0.5 (g)*
Zinc	(ug/L)	22.90		(<20.0)	U	20.50		280		21.0		(<20.0)	U	2,000 (g)

Parameter List USEPA Method 6010 B / 7470	New Well ID	MW-10		MW-12		MW-13		MW-14		n/a		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	MW-10		7-MW-10		7-MW-11		7-MW-12		Duplicate		
	Lab ID	A2676-01		A2314-04		A2314-07		A2314-05		A2314-12		
	Sample Type	water		water		water		water		water		
	Sample Date	5/8/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
Aluminum	(ug/L)	131.0	N	2,170		(<100)	U	425.0		(<100)	U	NA
Barium	(ug/L)	83.50		252.0		(<50.0)	U	80.0		(<50.0)	U	1,000 (s)
Calcium	(ug/L)	59,600		66,200		62,400		89,900		63,200		NA
Chromium	(ug/L)	(<5.0)	U	**69.80**		(<5.0)	U	(<5.0)	U	(<5.0)	U	50 (s)
Copper	(ug/L)	(<10.0)	U	(<10.0)	U	(<10.0)	U	(<10.0)	U	(<10.0)	U	200 (s)
Iron	(ug/L)	**590**		**2,910**		153.0		**746.0**		256.0		300 (s)
Lead	(ug/L)	(<6.0)	U	11.50		(<6.0)	U	6.590		7.250		25 (s)
Magnesium	(ug/L)	14,400		16,200		15,900		23,600		16,100		35,000 (g)
Manganese	(ug/L)	**1,320**		106.0		**421.0**		55.30		**844.0**		300 (s)
Mercury	(ug/L)	(<0.20)	U	0.210	N	(<0.20)	UN	(<0.20)	UN	(<0.20)	UN	0.7 (s)
Nickel	(ug/L)	(<20.0)	U	(<20.0)	U	(<20.0)	U	(<20.0)	U	(<20.0)	U	100 (s)
Potassium	(ug/L)	16,300		6,410		22,600		31,800		23,000		NA
Sodium	(ug/L)	**34,700**	N	**280,000**		**59,800**		**57,300**		**61,000**		20,000 (s)
Thallium	(ug/L)	(<0.20)	UN	(<0.20)	U	(<0.20)	U	(<0.20)	U	(<0.20)	U	0.5 (g)
Zinc	(ug/L)	(<20.0)	U	30.80		80.50		27.90		64.60		2,000 (g)

Notes:

All analytical data results provided by Chemtech.

Bold values indicate that the analyte was detected above the NYSDEC Ambient Water Quality Standard.

EPA = Environmental Protection Agency

NYSDEC = New State Department of Environmental Conservation

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

ug/L = mircograms per liter (ppb)

Duplicate collected at MW-13

EMPIRE ELECTRIC (2-24-015)
BROOKLYN, NEW YORK

TABLE 5 PCBS DETECTED IN WATER SAMPLES APRIL 2009

Parameter List USEPA Method 8082	New Well ID	MW-01		MW-02		MW-03		MW-05		MW-08		MW-09		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	EMMW-1		EMMW-2		EMMW-3		EMMW-5		MW-08		MW-09		
	Lab ID	A2314-10		A2314-03		A2314-11		A2314-06		A2314-01		A2314-02		
	Sample Type	water		water		water		water		water		water		
	Sample Date	4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
Aroclor-1260	(ug/L)	(<0.0930)	U	(<0.0940)	U	(<0.0930)	U	**3.80**		(<0.0930)	U	(<0.0920)	U	0.09(s)

Parameter List USEPA Method 8082	New Well ID	MW-10		MW-12		MW-13		MW-14		n/a		NYSDEC Ambient Water Quality Standard (ug/L)
	Sample ID	MW-10		7-MW-10		7-MW-11		7-MW-12		Duplicate		
	Lab ID	A2676-01		A2314-04		A2314-07		A2314-05		A2314-12		
	Sample Type	water		water		water		water		water		
	Sample Date	5/8/2009		4/14/2009		4/14/2009		4/14/2009		4/14/2009		
Aroclor-1260	(ug/L)	**4.10**		(<0.0910)	U	(<0.0920)	U	(<0.0920)	U	(<0.0940)	U	0.09(s)

Notes:

All analytical data results provided by Chemtech.

Bold values indicate that the analyte was detected above the NYSDEC Ambient Water Quality Standard.

EPA = Environmental Protection Agency

NYSDEC = New State Department of Environmental Conservation

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

ug/L = mircograms per liter (ppb)

Duplicate collected at MW-13

TABLE 6 MONITORING WELL NOMENCLATURE

Monitoring Well Identification											
	New	MW-08	MW-09	MW-13	MW-14	MW-12	MW-01	MW-02	MW-03	MW-05	MW010
	Previous	N/A	N/A	7-MW-11	7-MW-12	7-MW-10	EMMW-1	EMMW-2	EMMW-3	EMMW-5	N/A

Appendix A

Daily Field Reports

DAILY FIELD REPORT **Day: Tuesday Date:14 April 2009**

NYSDEC

Temperature: (F) 50 (am) 45 (pm)

Wind Direction: East 10mph (am) East 10mph (pm)

Weather: (am) Cloudy

(pm) Clouds, scattered rain

Project: Name Empire Electric

NYSDEC Site # 2-24-015

Contract # D004441-26

Arrive at site 0700 (am)

Location: Brooklyn, New York

Leave site: 1600 (pm)

HEALTH & SAFETY:

Are there any changes to the Health & Safety Plan? Yes ( ) No (X)
(If yes, list the deviation under items for concern)

Are monitoring results at acceptable levels?

Soil	Yes ( )	n/a (X)	* No ( )
Waters	Yes (X)	n/a ( )	* No ( )
Air	Yes ( )	n/a (X)	* No ( )

- *If No, provide comments*

OTHER ITEMS:

Site Sketch Attached: Yes ( ) No (X)
Photos Taken: Yes (X) No ( )

DESCRIPTION OF DAILY WORK PERFORMED:

Arrived on site at 0700, unloaded equipment, and conducted a preliminary inspection of the building. Identified a damaged masonry wall in the northwest corner of the building. A hole had been smashed through the cinder block wall permitting entrance to the building. Photos were collected and forwarded to the project manager. The steel drums containing purge water from the well installation and development had been tipped over and spilled to the concrete floor. One drum was damaged enough to prevent closure with the lid and ring. Pine Environmental arrived at 0730 and delivered groundwater sampling equipment.

Groundwater purging, using low flow sampling methods, began at MW-08 and MW-09 and continued towards the back of the building. Nine monitoring wells were sampled and no odors or sheens were detected. However, a slight sheen was observed in the initial purge water of EMMW-5. Sample locations were marked for brick/concrete sample collection. Groundwater samples were placed in coolers with bubble wrap and double-bagged ice, and were delivered to Chemtech Laboratories after departing the site at 1600 hours. The site main door was bolted and locked.

PROJECT TOTALS:

SAMPLING (Water)

Contractor Sample ID:	DEC Sample ID:	Description:
224015-MW08		MW-08 Groundwater sample (6 bottles)
224015-MW09		MW-09 Groundwater sample (6 bottles)
224015-EMMW-2		EMMW-2 Groundwater sample (6 bottles)
224015-7-MW-10		7-MW-10 Groundwater sample (6 bottles)
224015-7-MW-12		7-MW-12 Groundwater sample (18 bottles) w/ MS/MSD
224015-EMMW-5		EMMW-5 Groundwater sample (6 bottles)

DAILY FIELD REPORT **Day: Tuesday Date:14 April 2009**

224015-7-MW-11		7-MW-11 Groundwater sample (6 bottles)
224015-EMMW-1		EMMW-1 Groundwater sample (6 bottles)
224015-EMMW-3		EMMW-3 Groundwater sample (6 bottles)
224015-Duplicate		Duplicate of 224015-7-MW-11

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:

(EA Engineering) personnel: Chris Schroer, Dave Crandall, Megan Scott

(Subcontractor) personnel: None

(Rental) equipment: (United Rentals) 6,000 kW generator; (Pine Environmental) Honda 2000i generator, two Horiba U-22, two Solinst Water level indicators, two Grundfos 2" submersible pumps & controllers.

(*Indicates active equipment)

Other Subcontractors: None

VISITORS TO SITE:

1. None

PROJECT SCHEDULE ISSUES:

None.

PROJECT BUDGET ISSUES:

None.

ITEMS OF CONCERN:

A masonry wall blocking an old entrance was damaged by vandals. The hole was large enough to permit entrance to the building. During the building inspection, several small fire pits were identified. The fires sites were contained by piles of brick debris. Some monitoring wells (EM-B-1, EMMW-6, and EMMW-4) were not located as described. We were also not permitted access to the newly installed MW-10 by the production studio.

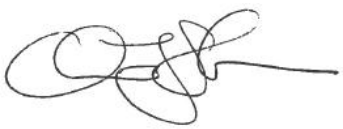
COMMENTS:

Groundwater samples were collected from nine monitoring wells. In addition, a duplicate, a matrix spike, and matrix spike duplicate were collected.

ATTACHMENT(S) TO THIS REPORT:

None.

SITE REPRESENTATIVE:



Name: Chris Schroer
cc: Don Conan, P.E., Scott Fonte, P.E.

DAILY PHOTOLOG


HOMER
PAINT
BUCKET


Solinst
Water Level Meter

DAILY FIELD REPORT **Day: Friday Date: 8 May 2009**

NYSDEC

Temperature: (F)	60	(am)	70	(pm)
Wind Direction:	East 10mph	(am)	East 10mph	(pm)
Weather:	(am) Sunny			
	(pm) Sunny			
Arrive at site	0900	(am)		
Leave site:	1200	(pm)		

Project: Name Empire Electric

NYSDEC Site # 2-24-015

Contract # D004441-26

Location: Brooklyn, New York

HEALTH & SAFETY:

Are there any changes to the Health & Safety Plan? Yes ( ) No (X)
(If yes, list the deviation under items for concern)

Are monitoring results at acceptable levels?	Soil	Yes ( )	n/a (X)	* No ( )
	Waters	Yes (X)	n/a ( )	* No ( )
	Air	Yes ( )	n/a (X)	* No ( )

- *If No, provide comments*

OTHER ITEMS:

Site Sketch Attached: Yes ( ) No (X)
Photos Taken: Yes (X) No ( )

DESCRIPTION OF DAILY WORK PERFORMED:

Groundwater purging, using low flow sampling methods, was performed at MW-10. The building structure was then inspected and reviewed in preparation on Remedial Design activities. Five (5) Hazardous Waste Site signs provided by the NYSDEC were placed on the building structure.

PROJECT TOTALS:

SAMPLING (Water)

Contractor Sample ID:	DEC Sample ID:	Description:
224015-MW10		MW-10 Groundwater sample (6 bottles)

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:

(EA Engineering) personnel: Don Conan, Scott Fonte

(Subcontractor) personnel: None

(Rental) equipment: (Pine Environmental) Honda 2000i generator, Horiba U-22, Solinst Water level indicators, two Grundfos 2" submersible pump & controller.

(*Indicates active equipment)

Other Subcontractors: None

VISITORS TO SITE:

1. None

PROJECT SCHEDULE ISSUES:

DAILY FIELD REPORT

Day: Friday Date:8 May 2009

None.

PROJECT BUDGET ISSUES:

None.

ITEMS OF CONCERN:

The masonry wall repair performed on 4/17/09 had been destroyed.

COMMENTS:

Groundwater samples were collected from one monitoring well.

ATTACHMENT(S) TO THIS REPORT:

None.

SITE REPRESENTATIVE:

Name: Scott Fonte
cc: Don Conan, P.E.

DAILY PHOTOLOG


HONDA
05/08/2009


DANGER
HAZARDOUS
WASTE AREA
UNAUTHORIZED
PERSONNEL
KEEP OUT
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
1-800-847-7332
05/08/2009

Appendix B

Groundwater Sampling Forms

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-01 (new) EMMW-1 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1017	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 1020
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 27.89	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 21.79	**E. Well Volume (gal) C*D):** 0.976	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 6.1	**F. Five Well Volumes (gal) (E3):** 4.88	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1024	5.92	0.92	>999	0.81	17.11	167	21.87	0.25	1
1028	5.97	0.94	106	0.00	17.26	154	21.86	0.25	2
1032	6	0.94	40.5	0.00	17.3	147	21.86	0.25	3
1036	6.02	0.94	20.8	0.00	17.4	144	21.86	0.25	4
1040	6.02	0.93	10.9	0	17.4	142	21.86	0.25	5

Total Quantity of Water Removed (gal): _____
Samplers: CS/MS/DC
Sampling Date: 4/14/2009

Sampling Time: 1045
Split Sample With: none
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-2 (new) EMMW-2 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1025	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 1027
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 28	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 21.21	**E. Well Volume (gal) C*D):** 1.0864	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 6.79	**F. Five Well Volumes (gal) (E3):** 5.432	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1031	6.81	1.34	>999	3.26	17.06	142	21.26	0.25	1
1035	6.83	1.36	480	3.25	17.29	138	21.23	0.25	2
1039	6.85	1.38	309	3.10	17.14	136	21.24	0.25	3
1043	6.85	1.38	39.2	3.00	16.87	127	21.24	0.25	4
1047	6.84	1.38	40.8	3.01	16.9	127	21.24	0.25	5
1051	6.84	1.38	41.6	3.02	16.97	127.00	21.24	0.25	6

Total Quantity of Water Removed (gal):
Samplers: CS/MS/DC
Sampling Date: 4/14/2009
Sampling Time: 1055
Split Sample With: none
Sample Type:

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-03 (new) EMMW-3 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1110	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 1115
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 27.28	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 17.94	**E. Well Volume (gal) C*D):** 1.4944	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 9.34	**F. Five Well Volumes (gal) (E3):** 7.472	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1120	7.62	1.76	176	0.14	13.59	104	17.94	0.25	1
1124	7.61	1.76	109	0.10	13.73	97	17.98	0.25	2
1128	7.62	1.76	65.7	0.04	13.74	88	17.98	0.25	3
1132	7.62	1.76	45.1	0.01	13.74	85	17.98	0.25	4
1136	7.62	1.76	35.1	0	13.74	84	17.99	0.25	5
1140	7.62	1.76	34.1	0	13.78	83.00	17.98	0.25	6

Total Quantity of Water Removed (gal): _____
Samplers: CS/MS/DC
Sampling Date: 4/14/2009
Sampling Time: 1145
Split Sample With: none
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-05 (new) EMMW-5 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1400	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 1408
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 15.74	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 11.96	**E. Well Volume (gal) C*D):** 0.6048	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 3.78	**F. Five Well Volumes (gal) (E3):** 3.024	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1412	6.62	0.882	>999	0.00	13.39	-64	12.15	0.25	1
1416	6.46	0.83	76.4	0.00	13.37	-35	12.19	0.25	2
1420	6.39	0.954	33.9	0.00	13.52	-37	12.26	0.25	3
1424	6.37	1.08	44.9	0.00	13.57	-54	12.34	0.25	4
1428	6.42	1.02	42.7	0.00	13.58	-44	12.38	0.25	5

Total Quantity of Water Removed (gal): _____ **Sampling Time:** 1430

Samplers: CS/MS/DC **Split Sample With:** none

Sampling Date: 4/14/2009 **Sample Type:** water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-08 (new) n/a	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 755	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 800
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 27.91	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 21.15	**E. Well Volume (gal) C*D):** 1.0816	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 6.76	**F. Five Well Volumes (gal) (E3):** 5.408	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
804	7.20	0.941	>999	5.58	15.02	144	21.18	0.25	1
808	7.18	0.929	>999	5.65	16.6	135	21.18	0.25	2
812	7.19	0.933	>999	5.56	17.42	127	21.19	0.25	3
816	7.19	0.929	>999	5.54	17.41	123	21.19	0.25	4
820	7.18	0.929	791	5.5	17.3	119	21.19	0.25	5
824	7.19	0.932	528	5.52	17.19	117	21.19	0.25	6
828	7.18	0.928	399	5.52	17.29	115	21.19	0.25	7
832	7.18	0.926	202	5.48	17.44	113	21.19	0.25	8
836	7.18	0.928	152	5.45	17.41	112	21.19	0.25	9
840	7.18	0.934	106	5.56	16.79	115	21.19	0.25	10
844	7.18	0.934	45.9	5.49	17.06	113	21.19	0.25	11
848	7.17	0.935	42.6	5.48	17.14	113	21.19	0.25	12
852	7.17	0.934	30.3	5.47	17.2	114	21.19	0.25	13

Total Quantity of Water Removed (gal): _____ **Sampling Time:** 855

Samplers: CS/MS/DC **Split Sample With:** none

Sampling Date: 4/14/2009 **Sample Type:** water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-09 (new) n/a	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:**	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 905	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:** 910
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 27.65	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 19.4	**E. Well Volume (gal) C*D):** 1.32	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 8.25	**F. Five Well Volumes (gal) (E3):** 6.6	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
914	7.48	1.1	>999	0.86	14.32	123	19.41	0.25	1
918	7.37	1.1	>999	0.73	15.77	116	19.41	0.25	2
922	7.39	1.1	>999	0.75	16.9	112	19.41	0.25	3
926	7.42	1.11	>999	0.76	16.73	108	19.41	0.25	4
930	7.42	1.13	654	0.69	16.68	105	19.41	0.25	5
934	7.44	1.14	636	0.78	16.58	103	19.41	0.25	6
938	7.43	1.14	370	0.75	16.65	95	19.41	0.25	7
942	7.43	1.14	259	0.81	16.72	90	19.41	0.25	8
946	7.46	1.17	124	1.51	16.49	90	19.41	0.25	9
950	7.44	1.17	66	0.9	16.72	88	19.41	0.25	10
954	7.41	1.17	50.1	1.01	16.95	87	19.41	0.25	11
958	7.41	1.18	41.7	1.03	16.96	87	19.41	0.25	12

Total Quantity of Water Removed (gal):
Samplers: CS/MS/DC
Sampling Date: 4/14/2009

Sampling Time: 1000
Split Sample With: none
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-10 (new) n/a (old)	**EA Personnel:** S. Fonte, D. Conan	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 8-May-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25 ft. dn	**Gauge Time:** 920	**Well Diameter (in):** 2

Purge Date: 9-May-09	**Purge Time:** 952
Purge Method: pump	**Field Technician:** S. Fonte, D. Conan

Well Volume

A. Well Depth (ft): 23.78	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 13.97	**E. Well Volume (gal) C*D):** 1.5696	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 9.81	**F. Five Well Volumes (gal) (E3):** 7.848	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
956	6.64	1	812	2.04	14.54	-15	15.3	0.25	1
959	6.62	0.92	475	1.83	14.55	-14	15.09	0.25	1.75
1001	6.64	0.85	106	2.03	14.96	-21	14.62	0.25	2.25
1011	7.04	0.78	55	2.49	15.6	-21	14.33	0.25	4.75
1015	7.01	0.71	59.3	2.2	15.4	-21	14.36	0.25	5.75
1020	7.01	0.68	39.5	2.23	15.5	-16	14.32	0.25	7
1025	7.02	0.68	14.6	2.20	15.7	-16	14.3	0.25	8.25
1030	6.98	0.68	3.2	2.21	15.4	-19	14.38	0.25	9.5
1035	6.91	0.65	0	2.24	15.26	-18	14.33	0.25	10.75

Total Quantity of Water Removed (gal): _____ **Sampling Time:** `

Samplers: CS/MS/DC **Split Sample With:** none

Sampling Date: 4/14/2009 **Sample Type:** water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-12 (new) 7-MW-10 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1110	**Well Diameter (in):** 2

Purge Date: 14-Apr-09	**Purge Time:**
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 29.15	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 19.77	**E. Well Volume (gal) C*D):** 1.5008	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 9.38	**F. Five Well Volumes (gal) (E3):** 7.504	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1118	5.99	1.61	>999	1.6	13.38	152	19.84	0.25	1
1122	5.98	1.61	>999	1.19	16.21	150	19.81	0.25	2
1126	5.98	1.61	609	1.10	16.29	147	19.82	0.25	3
1130	5.99	1.6	421	1.13	16.46	146	19.82	0.25	4
1134	5.99	1.6	398	1.12	16.47	146	19.82	0.25	5
1138	5.98	1.59	34.3	1.05	16.4	144.00	19.82	0.25	6
1142	5.98	1.6	49.7	1.06	16.41	143	19.83	0.25	7
1146	5.98	1.6	29.8	1.03	16.41	142	19.83	0.25	8

Total Quantity of Water Removed (gal):
Samplers: CS/MS/DC
Sampling Date: 4/14/2009
Sampling Time: 1150
Split Sample With: none
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

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GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-13 (new) 7-MW-11 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1301	**Well Diameter (in):** 4

Purge Date: 14-Apr-09	**Purge Time:**
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 29.24	**D. Well Volume (ft):** 0.16	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 17.28	**E. Well Volume (gal) C*D):** 1.9136	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 11.96	**F. Five Well Volumes (gal) (E3):** 9.568	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1305	6.66	0.717	44.8	0	13.51	94	18	0.25	1
1309	6.71	0.715	28.5	0.00	13.75	86	17.97	0.25	2
1313	6.74	0.715	26.6	0.00	13.93	74	17.98	0.25	3
1317	6.77	0.718	24.4	0.00	13.94	76	17.98	0.25	4

Total Quantity of Water Removed (gal):
Samplers: CS/MS/DC
Sampling Date: 4/14/2009
Sampling Time: 1320
Split Sample With: Duplicate
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: MW-14 (new) 7-MW-12 (old)	**EA Personnel:** C.Schroer, M. Scott, D. Crandall	**Client:** NYSDEC
Location: Empire Electric- Brooklyn, NY	**Well Condition:** good	**Weather:** Partly Cloudy
Sounding Method:	**Gauge Date:** 14-Apr-09	**Measurement Ref:** top of casing
Stick Down (ft): 0.25	**Gauge Time:** 1250	**Well Diameter (in):** 4

Purge Date: 14-Apr-09	**Purge Time:** 1256
Purge Method: pump	**Field Technician:** C. Schroer, M. Scott, D. Crandall

Well Volume

A. Well Depth (ft): 28.51	**D. Well Volume (ft):** 0.65	**Depth of Top of PVC:** 3"
B. Depth to Water (ft): 16.71	**E. Well Volume (gal) C*D):** 7.67	**Pump Type:** Submersible
C. Liquid Depth (ft) (A-B): 11.8	**F. Five Well Volumes (gal) (E3):** 38.35	**Pump Designation:** Grundfos

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (uS/cm)	Turbidity (ntu)	DO (ug/L)	Temperature (oC)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1300	8.27	0.952	172	3.22	13.12	114	17.08	0.25	1
1304	8.25	0.955	298	3.08	13.49	106	17.02	0.25	2
1308	8.23	0.952	240	3.08	13.68	101	16.98	0.25	3
1312	8.22	0.953	134	3.06	1400	91	16.98	0.25	4
1316	8.22	0.955	60.5	3.00	14.09	78	16.98	0.25	5
1320	8.22	0.955	44.7	2.95	14.18	70	16.98	0.25	6
1324	8.22	0.956	36.3	2.90	14.24	66	16.98	0.25	7
1328	8.21	0.956	31.1	2.84	14.28	63	16.98	0.25	8

Total Quantity of Water Removed (gal): _____
Samplers: CS/MS/DC
Sampling Date: 4/14/2009

Sampling Time: 1330
Split Sample With: MS/MSD
Sample Type: water

COMMENTS AND OBSERVATIONS: Note that pre-existing well I.D. number have been changed as shown above (old/new).

Appendix C

Data Usability Summary Report - CD Format

Appendix D

Laboratory Analytical Data, Form I's, and Chain of Custody Forms - CD Format